(e) subjecting all or a portion of the remaining mixture to a preparative scale HPLC system comprising a preparative scale HPLC column; and

(f) collecting at least a portion of the compound of interest using the predicted elution time.

- 36. The method of claim 35 wherein step (d) comprises:
- (1) predicting a retention time of the compound of interest from the preparative scale HPLC column using either:
 - (a) a predetermined correlation function between retention time on the analytical HPLC column and retention time on the preparative scale HPLC column along with the determined retention time of the compound of interest on the analytical HPLC column, or
 - (b) a predetermined correlation function between Rf value from the thin layer chromatography and retention time on the preparative scale HPLC column along with the determined Rf value of the compound of interest; and
- (2) selecting a window of time around the predicted retention time within which the compound of interest is expected to elute.
- 37. The method of claim 35 wherein an artificial neural network is used to predict the elution time in step (d).
- 38. The method of claim 35 wherein a dynamic correlation function is used to predict the elution time in step (d).

